



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 10**

1200 Sixth Avenue, Suite 900  
Seattle, WA 98101-3140

OFFICE OF  
ENVIRONMENTAL CLEANUP

**SUBJECT:** Action Memorandum for the Avery Landing Site located near Avery, Shoshone County, Idaho

**FROM:** Earl Liverman, Federal On-Scene Coordinator  
Emergency Response Unit

**THRU:** Chris D. Field, Manager  
Emergency Management Program

**TO:** Daniel D. Opalski, Director  
Office of Environmental Cleanup

**I. PURPOSE**

The purpose of this Action Memorandum is to request and document approval of a non-time critical removal action for the Avery Landing Site located near the town of Avery in Shoshone County, Idaho (Site). For that portion of the Site which is owned by the United States and administered by the Federal Highway Administration (FHWA), it is currently anticipated that the removal action will be conducted by FHWA under the oversight of the United States Environmental Protection Agency (EPA). For all other areas of the Site, it is presently expected that the removal action will be undertaken by Potlatch Corporation (Potlatch) and Potlatch Forest Products Corporation (PFPC) with oversight and a portion of the funding provided by EPA, or by EPA with a majority of the funding provided by Potlatch and PFPC.

**II. SITE CONDITIONS AND BACKGROUND**

The CERCLIS ID No. is IDD984666313 and the Site ID No. is 10FT.

**A. Site Description**

**1. Removal site evaluation**

The Site is the location of a former railroad maintenance and refueling facility for the Chicago, Milwaukee, St. Paul, and Pacific Railroad (Milwaukee Railroad). The geographical coordinates for the Site are latitude 47°14' 57" north latitude; longitude 115° 49' 16" west longitude (Figures 1, 2, and 3).

There is substantial information indicating that human health and environmental impacts are present at the Site. A petroleum plume of heavy oil and diesel is present in subsurface soil and groundwater and is migrating toward and discharging to the St. Joe

River. Additionally, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), carcinogenic and non-carcinogenic polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), and metals are present in subsurface soil and groundwater at the Site.

## **2. Physical location**

The Site was used as a switching station and light maintenance facility for the Milwaukee Railroad from 1907 until 1977. The facility included a turntable, roundhouse, machine shop, fan house, engine house, boiler house, storehouses, coal dock, oil tanks, and a pump house. Activities included refueling trains, using solvents to clean engine parts, cleaning locomotives, and maintaining equipment. The facility was located at the end of an electric rail line from the east; at the facility, trains switched to fuel oil and/or diesel locomotives. Fuel oil was stored on-Site in a 500,000-gallon aboveground storage tank (AST). The Milwaukee Railroad began to operate electric locomotives in the mid-1910s and continued until the mid-1970s.

Figure 4 illustrates a historical railroad facility diagram, and Figure 5 presents this diagram superimposed on a recent aerial photograph of the Site. The locations of relevant features are indicated and include the turntable, machine shop, cinder pit, boiler house, oil and coal bins, 500,000-gallon diesel and fuel oil AST (indicated as the "50' oil service tank" on Figures 4 and 5), other oil tanks, and associated piping.

The Site is within the narrow St. Joe River Valley, which is in the St. Joe National Forest District of the Idaho Panhandle National Forests. There are generally steep mountains to the north and south of the St Joe River, including directly north of Highway 50 from the Site. Land uses in the area around the Site are largely rural and recreational, which is consistent with its location surrounded by a national forest. The St. Joe River is a popular recreational waterway that is often used for kayaking, rafting, and fishing. There are several areas of commercial land nearby, including a motel and recreational vehicle park across the river.

The St. Joe River is used for wildlife habitat, recreation, and drinking water for downstream residents. The segment of the St. Joe River adjacent to the Site that could be impacted by contaminants found at the Site has the following designations: special resource water, domestic water supply, primary contact recreation, cold water communities, and salmonid spawning. The following threatened or endangered species are present in the vicinity of the Site: Canada lynx (*Lynx canadensis*) and Bull trout (*Salvelinus confluentus*).

## **3. Site characteristics**

The Milwaukee Railroad owned the Site from 1907 to 1980 and operated at the Site from approximately 1907 to 1977. The Milwaukee Railroad initiated a bankruptcy reorganization proceeding in 1977 which was completed in 1985. The successor

corporation to the Milwaukee Railroad is CMC Heartland Partners (CMC). A bankruptcy liquidation proceeding was initiated by CMC in 2006.

Potlatch acquired an approximate 5-acre portion (Section 16) of the Site from the Milwaukee Railroad in 1980. Many of the former Milwaukee Railroad facilities, including the turntable, roundhouse, engine house, machine shop, and cinder pit, were located on the portion of property obtained by Potlatch. Prior to this purchase, from 1973 to 1980, Potlatch leased portions of the Site from the Milwaukee Railroad. After acquiring the land, Potlatch leveled and graded the property. Potlatch has used the property for temporary log storage, an employee bunkhouse, and a private rail line. Portions of the property have also been leased by Potlatch to tenants for log storage, parking, and trailer sites. The buildings and equipment associated with the former Milwaukee Railroad maintenance facility are no longer visible at the Site. EPA does not have definitive information about the disposition of these materials. Potlatch transferred its property ownership interests at the Site to PFPC in 2005.

As part of the bankruptcy reorganization of the Milwaukee Railroad, a portion (Section 15) of the Site reverted back to the family which owned this property prior to the operations of the Milwaukee Railroad, and this family subsequently sold the property to David Thierault. In 1996, David Thierault in turn sold this approximate 5-acre portion of property to Larry and Ethyl Bencik (Benciks), who currently own the property and use it for a vacation residence. Historical railroad facilities on this portion of the Site included an office, store house, oil pipes, and sand, coal, and oil storage. Based on the historical facility diagram, this portion of the Site may also have been the area where most of the rail car refueling occurred during the operation of the Milwaukee Railroad.

The original railroad grade portion of property along the northern edge of the Site was acquired by the United States by eminent domain in 1986. FHWA constructed and expanded State Highway 50 along this property. Although the United States continues to own this property, FHWA provided an easement right-of-way in 1992 allowing Shoshone County to operate and maintain State Highway 50. This portion of the Site extends to the shoulder north of the highway, where the former Milwaukee Railroad roundhouse AST was located, and where Potlatch re-injected untreated groundwater from a 1990s pump-and-treat system after processing through an oil/water separator.

The maintenance facility at the Site was related to several other Milwaukee Railroad facilities located approximately 0.75 miles east in the town of Avery. In the town there was a passenger terminal and Substation No. 14, an electric substation that provided electricity for the electric rail line to the east.

**a. Release or threatened release into the environment of a hazardous substance, or pollutant, or contaminant**

The contaminants of concern at the Site include VOCs, SVOCs, PAHs, PCBs, and metals, which are all hazardous substances as defined by Section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA),

42 U.S.C. § 9601(14), and Section 311 of the Federal Water Pollution Control Act, also referred to as the Clean Water Act (CWA), 33 U.S.C § 1321. These hazardous substances are mixed throughout the Site with oil, which is another one of contaminants of concern, as defined in Section 311 of CWA, 33 U.S.C. § 1321, and Section 1001(23) of the Oil Pollution Act (OPA), 33 U.S.C. § 2701(23).

Data regarding the nature and extent of the contaminants of concern found at the Site are summarized below. A more thorough discussion of the Site investigations and data is found in the project Engineering Evaluation/Cost Analysis (EE/CA) document.<sup>1</sup>

#### **i. Idaho Department of Environmental Quality (IDEQ) late 1980s Site Investigation**

In the late 1980s, the State of Idaho Division of Environmental Quality (IDEQ) of the Idaho Department of Health (now the State of Idaho Department of Environmental Quality) began to investigate the Site because of the presence of visible oil discharges to the St. Joe River from the Site riverbank. The investigation included installation of several monitoring wells and test pits in the late 1980s and early 1990s. These investigations determined that the oil included a mix of diesel and heavy oil and was present at the water table throughout the Site, with oil thicknesses exceeding a depth of four feet in some locations.

#### **ii. EPA 1992 Site Inspection**

In 1992, URS Consultants, Inc., (URS) performed an investigation at the Site as a contractor to EPA. URS collected soil, groundwater, and surface water samples from the Site and vicinity for laboratory analysis. The results indicated the presence of VOCs, SVOCs, metals, and PCBs. Benzene, arsenic, and lead were detected in an on-Site monitoring well at concentrations that exceeded their respective federal Maximum Contaminant Levels (MCLs).

#### **iii. Potlatch 2005 to Present Light Non-Aqueous Phase Liquid (LNAPL) Discharge Maintenance**

Beginning in 2002, and on a continuing basis thereafter, IDEQ has observed oil discharges to the St. Joe River from the Site. IDEQ recommended that Potlatch place oil absorbent booms in the river to contain the discharges. Although the booms were supposed to be deployed and maintained consistently while any discharges of oil were present, actual boom deployment was intermittent and incomplete. On multiple occasions since 2005, IDEQ and EPA have observed light non-aqueous phase liquid (LNAPL) discharges to the river with no booms in place. Additionally, EPA has observed oil "blooms" rising from the river bed several feet away from the river bank.

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<sup>1</sup> Ecology and Environment, Inc. December 2010. Draft Final Engineering Evaluation and Cost Analysis for the Avery Landing Site, Avery, Idaho. Prepared for U.S. Environmental Protection Agency, Region 10, Seattle, Washington.

Furthermore, Potlatch's use of the booms was not subject to a comprehensive containment and LNAPL recovery plan or a schedule agreed upon with any government agency.

#### **iv. EPA 2007 Removal Assessment**

In a letter dated 11 September 2006, IDEQ requested the assistance of EPA to investigate the Site and the continued oil discharges to the St. Joe River. In 2007, EPA performed a removal assessment at the Site to investigate the discharges of oil and hazardous substances to surface waters and shorelines of the United States in potential contravention of the CWA, and releases of hazardous substances in potential contravention of CERCLA. EPA installed 13 soil borings, of which six were completed as monitoring wells. The investigation focused on the eastern area of the Site, including portions of both the Potlatch/PFPC and Benciks properties.

EPA observed oil in surface water, groundwater, and subsurface soil throughout the Site at levels that exceeded applicable state regulatory standards. Oil was observed floating on groundwater in monitoring and recovery wells with measurable thicknesses up to 0.88 feet. Subsurface soils collected from soil borings were saturated with oil. EPA observed active oil discharges and "blooms" to the St. Joe River in potential contravention of the CWA and state regulations. An approximate 200-foot stretch of the Site's river bank contained evidence of past-oil discharges, including oil staining on rip rap at the water level. Analytical results confirmed the presence of diesel and heavy oil (Bunker C), which was consistent with historical documentation about the nature of the oil releases. EPA's investigation also indicated the area of the free oil plume was larger than previously estimated.

Subsurface soil and groundwater samples collected from the Site contained several hazardous substances (including carcinogenic PAHs) that exceeded applicable state and federal guidelines. Several metals (arsenic, iron, lead, manganese, and mercury) also exceeded applicable guidelines, although some of these metals may be naturally elevated in the region. The PCB Aroclor-1260 was detected in several Site soil samples and in a sample of the oil, and Aroclor-1260 exceeded the state guideline in one groundwater sample. The on-Site domestic well, which is downgradient of the Site's LNAPL plume area, contained concentrations of Site contaminants, including anthracene, diesel-range organics (DRO), and arsenic.

In addition to the visible oil discharges to the St. Joe River, a sample of surface water contained four PAHs (benzo[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, and chrysene) at concentrations that exceeded Idaho Risk Evaluation Manual guidelines, and the PAH benzo[a]pyrene also exceeded the federal ambient water quality criteria. When compared to sediment guidelines, PAH compounds detected in the soil samples exceeded several consensus-based sediment quality guidelines.

**v. Potlatch 2009/2010 Draft Engineering Evaluation/Cost Analysis**

In 2008, Potlatch/PFPC and EPA entered into an Administrative Settlement Agreement and Order on Agreement (ASAOC), CERCLA Docket No. 10-2008-0135, requiring Potlatch/PFPC to complete an Engineering Evaluation/Cost Analysis (EE/CA), a Biological Assessment (BA), and a Cultural Resources Evaluation (CRE) for the Site. Work associated with the EE/CA was undertaken by Golder Associates, Inc. (Golder) as a consultant to Potlatch/PFPC. As a part of the EE/CA, Potlatch/PFPC agreed to perform additional characterization field work at the Site, which was completed in the late summer and fall of 2009.

The field work included the sampling of subsurface soil (from test pits and boreholes), groundwater (from existing and four newly installed monitoring wells), LNAPL (from groundwater wells and surface water discharges), sediment, and surface water. LNAPL was observed in subsurface soil, groundwater, sediment, and surface water. Analytical results indicated that DRO/heavy oils, SVOCs (including carcinogenic PAHs), PCBs, VOCs, and metals were detected in subsurface soil and sediment. DRO/heavy oils and carcinogenic PAHs were detected in groundwater. Surface water contained carcinogenic and non-carcinogenic PAHs and metals.

Based on observations recorded during field work, Golder updated the estimated extent of the LNAPL plume. Golder also observed evidence of buried debris and trash in the western half of the Site.

A component of the Potlatch/PFPC EE/CA investigation was a treatability study to evaluate soil washing as a potential treatment method for oil-contaminated soil. The results of the treatability study indicated that soil washing could effectively achieve removal efficiencies of 96 to 97 percent (%) for DRO and heavy-oil range hydrocarbons.

Beginning 8 April 2010, EPA assumed responsibility for completion of the Site EE/CA, BA, and CRE due primarily to an excess of deficiencies in the draft EE/CA report submitted by Potlatch/PFPC. EPA communicated its concerns about the deficiencies to Potlatch/PFPC and its intent to complete the EE/CA report.

**4. NPL status**

The Site is not listed on the National Priority List (NPL) nor has it been proposed for the NPL, and the Site is not expected to be referred to EPA's Remedial Program.

**5. Maps, pictures, and other graphic representations**

Refer to attached Figure 1 (Site Location Map), Figure 2 (Site Vicinity Map), and Figure 3 (Site Layout Map), Figure 4 (Historical Railroad Facility Layout), Figure 5 (Historical Railroad Facility Layout with recent Aerial Image of Site), and Figure 6 (LNAPL Plume

Area Estimates [2000, 2007, 2009] and Product Observations in Soil Borings and Test Pits [2007 and 2009]).

## **B. Other Actions to Date**

### **1. Previous actions**

There have been two previous cleanup actions conducted at the Site as discussed below; however, these actions were not conducted under the authority of CERCLA or the CWA.

#### **a. Potlatch 1994 Product Recovery System**

In 1994, Potlatch installed a product recovery system at the Site pursuant to an agreement entered into with IDEQ. The system included several trenches installed near the bank of the St. Joe River. Groundwater and oil were pumped from these trenches and then sent through an oil/water separator. Recovered oil was stored in an on-Site AST for later off-Site disposal. Recovered groundwater was pumped underneath Highway 50 and re-injected into the ground through an approximately 360-foot long re-infiltration trench installed north of the road. The system operated until approximately 2000 and recovered a total of 1,290 gallons of oil.

#### **b. Potlatch 2000 Product Containment Barrier**

By 2000, despite the operation of the product recovery system, product discharges from the Site continued to be observed on the banks of the St. Joe River. Under direction from IDEQ, Potlatch installed a restraining barrier along the bank in 2000 to help prevent oil from reaching the river. Potlatch excavated material away from the bank, installed a polyvinyl chloride (PVC) liner to act as a barrier wall to prevent oil discharges to the river, and backfilled with sand, gravel, and riprap along the bank. Potlatch also installed a series of product recovery trenches and wells to recover any oil that might collect against the barrier. With the new restraining barrier, Potlatch proposed to recover additional oil if oil was present in Site recovery wells at a thickness of 0.05 feet (0.6 inches) or greater. Potlatch continued to monitor the monitoring wells on Site for oil, but never operated the oil recovery system again.

### **2. Current actions**

There are no government or private cleanup activities that are currently being performed at the Site.

### **C. State and Local Authorities Roles**

#### **1. State and local actions to date**

IDEQ has been involved with review of Site-related documents. Written comments regarding the EE/CA were received from IDEQ.

#### **2. Potential for continued state and local response**

IDEQ is expected to remain involved in future Site cleanup activities.

It is anticipated that IDEQ will be provided enforceable environmental covenants, limiting certain activities and uses at the Site, pursuant to the Idaho Code, Title 55 Chapter 30, Uniform Environmental Covenants Act.

#### **3. Government-to-government consultation with the Coeur d'Alene Tribe**

Government-to-government consultation was initiated by EPA with the Coeur d'Alene Tribe (Tribe). No comments were received from the Tribe.

### **III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES**

The current conditions at this Site meet the following factors which indicate that the Site is a threat to the public health or welfare or the environment, and that a removal action is appropriate under the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 C.F.R. § 300.415(b)(2). Given that the contamination at the Site appears to primarily consist of a commingled mixture of hazardous substances and oil, EPA is addressing this contamination under 40 C.F.R. Part 300, Subpart E (Hazardous Substance Response), but should it prove to be appropriate and necessary to do so, EPA may also address conditions at the Site under 40 C.F.R. Part 300, Subpart D (Operational Response Phases for Oil).

#### **A. Threats to Public Health or Welfare**

##### **1. Exposure to nearby human populations, animals, or the food chain from hazardous substances, pollutants or contaminants mixed with oil (40 C.F.R. § 300.415[b][2][I])**

The contaminants of concern found at the Site include VOCs, SVOCs, carcinogenic and non-carcinogenic PAHs, PCBs, metals mixed with oil. Refer to attached Table 1 for a discussion of the human health effects associated with the Site contaminants of concern. As with all hazardous substances mixed with oil, the nature and extent of the health effect will depend on many factors including composition, concentration, and length of time exposed.

The complete exposure pathways for groundwater and soil include dermal contact, ingestion, and inhalation. Nearby seasonal residents, recreationists, and/or trespassers could be exposed to the Site contaminants found in subsurface soil and groundwater if engaged in subsurface disturbance activities. Although not open to the public, access to the Site is unrestricted and entry and egress can be gained from both land and water. Use of an existing on-Site domestic drinking water well has been discontinued; however, the well is not known to have been abandoned in accordance with State regulations. There are no physical barriers restricting access or institutional controls such as well drilling prohibitions to minimize the potential for human exposure to Site contamination by limiting land or resource use.

**2. Minimization or elimination of the effects of weather conditions that may cause hazardous substances, pollutants or contaminants to migrate or to be released/discharged (40 C.F.R. § 300.415[b][2][v])**

Seasonal weather conditions facilitate the migration and release of Site contaminants. Groundwater elevations range from approximately 9 to 16 feet below ground surface (bgs), and the elevations are likely influenced by surface water flows in the St. Joe River. The vertical fluctuations will affect the movement of contaminants in the vadose zone which can serve as a source of groundwater contamination. Spring time snow melt, rainfall or other forms of run-off inducing events will tend to spread the contaminated materials throughout and further from the Site. In such instances, percolating water may come in contact with Site contaminants and carry dissolved material to the groundwater, as well as cause the continued hydraulic expansion of the contaminated zone and movement of the contaminant plume.

**3. Availability of other appropriate federal or state response mechanisms to respond to the release (40 C.F.R. § 300.415[b][2][viii])**

The proposed non-time-critical removal action is expected to be conducted by FHWA and either Potlatch/PFPC or EPA in accordance with CERCLA and CWA. At this point, there are no known other appropriate federal or state response mechanisms capable of providing the appropriate resources in the prompt manner needed to address the potential human health and ecological risks associated with the hazardous substances mixed with oil described herein.

**B. Threats to the Environment**

**1. Exposure to nearby human populations, animals, or the food chain from hazardous substances, pollutants or contaminants (40 C.F.R. § 300.415[b][2][i])**

Ecological receptors can become exposed to Site contaminants through direct contact with the contaminants of concern mixed with oil and with water and sediments

contaminated by the contaminants of concern mixed with oil; ingestion of the contaminants of concern mixed with oil and water and sediments contaminated by the contaminants of concern mixed with oil; and through the food chain by consuming animals and plants that have accumulated Site-related contamination.

#### **IV. ENDANGERMENT DETERMINATION**

The actual or threatened releases of hazardous substances within and from the Site may present an imminent and substantial endangerment to public health, or welfare, or the environment within the meaning of Section 106(a) of CERCLA, 42 U.S.C. § 9606(a).

The actual or threatened discharges of hazardous substances or oil at the Site, may be an imminent and substantial threat to the public health or welfare of the United States, including fish, shellfish, wildlife, public and private property, shorelines, beaches, habitat, and/or other living and nonliving natural resources under the jurisdiction or control of the United States, within the meaning of Section 311(e) of CWA, 33 U.S.C. § 1321(e). Further, there may be a discharge or substantial threat of discharge of hazardous substances or oil into or on navigable waters, on the adjoining shorelines to the navigable waters, or that may affect natural resources belonging to, appertaining to, or under the exclusive management authority of the United States, within the meaning of Section 311(c) of CWA, 33 U.S.C. § 1321(c).

#### **V. CONSIDERED AND SELECTED ACTIONS AND ESTIMATED COSTS**

The goal of the non-time-critical removal action is to prevent the release and discharge of hazardous substances and oil to the St. Joe River and to reduce hazardous substances to acceptable human health and ecological risk-based concentrations at the Site.

The following removal action alternatives were developed and individually evaluated against the short- and long-term aspects of three broad criteria - effectiveness, implementability, and cost:

- Alternative 1 - No Action;
- Alternative 2 - LNAPL Extraction and Ex-situ Thermal Desorption of Soils;
- Alternative 3 - LNAPL Extraction and Ex-situ Soil Washing; and
- Alternative 4 - LNAPL Extraction and Off-Site Disposal.

Once the alternatives were individually assessed against the criteria, a comparative analysis was conducted to evaluate the relative performance of each alternative in relation to each of the criteria. This is in contrast to the individual analysis in which each alternative was analyzed independent without consideration of other alternatives.

Based on the individual and comparative analysis of removal action alternatives, the recommended removal action is Alternative 4 - LNAPL Extraction and Off-Site Disposal. The following is a summary of Alternative 4.

A detailed description and individual and comparative analysis of removal action alternatives are found in Sections 4, 5, and 6 of the project EE/CA.

## **A. Recommended Actions**

### **1. Recommended action description**

#### *Engineering and Institutional Controls*

Institutional controls will minimize the potential for human exposure to contamination by limiting certain activities and use of resources, including groundwater. Enforceable environmental covenants pursuant to the Idaho State UECA will be developed and put into effect to provide such limitations.

#### *Excavation and Removal of Hazardous Substances/Oil*

The hazardous substances and oil serve as a source of groundwater contamination, and source removal is the most effective way to prevent further contamination. An estimated 90,770 cubic yards (yds<sup>3</sup>) of clean overburden will be excavated and set aside for reuse as backfill material. An estimated 47,000 yds<sup>3</sup> of contaminated soil will be excavated, and this material will be shipped off-Site for disposal at a facility operating in compliance with the Resource Conservation and Recovery Act (RCRA) or other applicable Federal or state requirements. Based on existing data, the excavation would extend to a depth of approximately 2 feet below the seasonal low groundwater level, or to an average depth of 17 feet below ground surface. The level of design detail to achieve the removal of contamination to the “maximum extent practicable” will be determined during the design phase of the removal action. This determination will be based on best professional judgment that considers Site-specific conditions and field measurements, rather than exclusively contaminant concentrations. Removal of the source materials will enable natural processes that can degrade contaminants in soil and groundwater. Similarly, discrete areas of contamination in the western portion of the Site, where oil and sheen were observed in 2009 test pits, will also be addressed through hot-spot excavation focusing on saturated soil. Prior to backfilling, confirmation soil samples will be collected to determine compliance with the cleanup objectives or whether additional soil removal will be necessary. Excavations will then be backfilled with stockpiled overburden and/or clean backfill obtained from off-Site, and covered with approximately 6 inches of topsoil and revegetated once final grading is complete.

The exact method of oil recovery will also be determined during the design phase of the removal action. The selection of the recovery system will be based on maximizing the removal of oil floating on the water table in excavations with little or no recovery of water. If groundwater is co-produced or enters the excavations, the water will be

treated via an oil/water separator with carbon filter polishing. The recovered material will be transported to an appropriate off-Site treatment and/or recycling facility. The treated groundwater will be discharged to the St. Joe River and/or allowed to passively infiltrate the soil.

#### *Removal of Existing Treatment/Recovery System and Debris*

The 1994 oil recovery system and the 2000 oil containment barrier, as well as debris such as foundations from historical Site operations, will be removed, and where practicable, reused as backfill materials or disposed of at an appropriate off-Site facility.

#### *Construction of the St. Joe River Bank*

The removal of the 2000 oil containment barrier will require reconstruction of the shoreline of the St. Joe River. The shoreline will be designed and constructed to the maximum extent practicable to resemble pre-construction form and function, and to avoid and minimize adverse effects on the aquatic environment.

#### *Construction Best Management Practices*

Appropriate and practicable construction Best Management Practices (BMPs) will be implemented during cleanup activities, including removal of contamination and construction of the St. Joe River shoreline, to protect workers, the community, and the environment from short-term construction impacts such as erosion and sedimentation, fugitive dust, noise, use of public roadways, and other similar potential impacts. Additionally, work within the St. Joe River will occur during periods of low-flow to ensure that adverse effects to the aquatic environment are minimal.

Non-hazardous wastes such as inert construction debris will be reused, disposed of, or recycled in accordance with appropriate solid waste disposal or recycling requirements.

#### *Greener Cleanup Best Management Practices*

Appropriate and practicable greener cleanup BMPs will be implemented during cleanup activities, including, but not limited to, minimizing energy consumption (e.g., using new and well-maintained equipment), minimizing generation and transport of fugitive dust (e.g., implementation of construction BMPs), minimizing waste generation through reuse (e.g., concrete and riprap) and recycling (e.g., recovered oil), minimizing impacts to water resources (e.g., implementation of construction stormwater and surface water BMPs), minimizing areas requiring activity or use limitations (e.g., source removal), minimizing unnecessary soil and habitat disturbance, and minimizing lighting and noise disturbance (e.g., implementation of construction BMPs).

### *Long-term Monitoring and Maintenance*

A long-term monitoring program is expected to be conducted by the owner(s) of property at the Site, and subject to IDEQ oversight under UECA restrictive covenants, and will be implemented to monitor contaminant degradation in soil and groundwater. As part of the monitoring program, periodic groundwater monitoring will be conducted using the existing and possibly newly installed monitoring wells to monitor natural attenuation of Site contaminants.

## **2. Contribution to remedial performance**

The recommended response action may be the first and only action or one of a series of actions depending on post-removal activities such as those necessary to maintain the protectiveness of the cleanup. If future actions are required, the proposed removal action will likely not impede those actions based upon available information.

## **3. Engineering Evaluation/Cost Analysis (EE/CA)**

The EE/CA Approval Memorandum was signed and issued by EPA on 25 March 2008. An EE/CA document was prepared by EPA, and on 7 January 2011, EPA released the EE/CA document for comment and evaluation to the FHWA, IDEQ, Coeur d'Alene Tribe, and Potlatch/PFPC. Based on the analysis of the nature and extent of contamination and on the cleanup objectives for the Site, a limited number of removal action alternatives were identified and selected for detailed analysis. The EE/CA identified a recommended removal alternative that individually and comparatively best satisfied the following evaluation criteria – effectiveness, implementability, and cost.

On 7 January 2011, EPA released the EE/CA document for public comment and evaluation. A notice of availability and brief description of the EE/CA document was published in the St. Maries Gazette. A 45-day public comment period was held from 26 January 2011 through 11 March 2011. Additionally, a web site was established to allow public viewing of the EE/CA document.

EPA received written comments from IDEQ (letter dated 11 March 2010) and Potlatch/PFPC (letter dated 11 March 2010). Government-to-government consultation was also initiated with the Tribe (letter dated 12 January 2011); however, no written comments were received from the Tribe.

A written summary and response by EPA to public comments received about the EE/CA is attached.

## **4. Applicable or relevant and appropriate requirements**

The NCP requires that removal actions attain ARARs under federal or state environmental or facility siting laws, to the extent practicable considering the exigencies of the situation (40 C.F.R. § 300.415[j]). In determining whether compliance with ARARs

is practicable, EPA may consider the scope of the removal action and the urgency of the situation (40 C.F.R. § 300.415[j]).

Refer to attached Table 2 for state and federal ARARs.

## **5. Project Schedule**

The removal action project is expected to require approximately 3½ months of work at the Site.

### **C. Estimated Costs**

An analysis of relative costs of the proposed actions is found in Section 6 and Appendix C of the EE/CA. In December 2010 when the EE/CA was completed, the cost for the recommended removal action was approximately \$8,500,000. The cost is currently estimated to be \$9,770,000, with the increased amount primarily due to a more recently anticipated need to provide for temporary lodging for Site workers and a more conservative estimate of the extent of potentially contaminated soil in the western portion of the Site.

## **VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN**

If the response action should be delayed or not taken:

- Hazardous substances will remain as potential human health and ecological threats based on direct contact, ingestion, and inhalation exposure pathways, and will remain a continuing source of solid and dissolved-phase contaminants to groundwater that migrate from the Site through groundwater and/or surface water; and
- Oil contamination, in many instances commingled with hazardous substances, will continue to migrate toward and be discharged or released to the St. Joe River.

## **VII. OUTSTANDING POLICY ISSUES**

None.

## **VIII. ENFORCEMENT**

Refer to attached confidential enforcement addendum.

## **IX. DETERMINATION**

This decision document sets forth the recommended removal action for the Site that has been developed in accordance with CERCLA, and is consistent with the NCP and CWA. The recommended removal action is based on the administrative record for the Site.

Conditions at the Site meet the NCP 40 C.F.R. § 300.415(b) criteria for a removal action and I request your approval of the recommended removal action. The recommended removal action is expected to be conducted on federal property by FHWA under the oversight of EPA, and on all other property by Potlatch/PFPC with oversight and part of the funding provided by EPA or by EPA with a majority of the funding to be provided by Potlatch/PFPC. However, if FHWA and Potlatch/PFPC are unwilling or unable to fund or conduct the recommended removal action, and EPA must undertake all removal action work, the total project ceiling is currently estimated to be \$9,770,000.

## **X. APPROVAL/DISAPPROVAL**

By the approval which appears below, EPA selects the removal action for the Site as set forth in the recommendations contained in this Action Memorandum.

Approve: \_\_\_\_\_

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Daniel D. Opalski, Director  
Office of Environmental Cleanup

Disapprove: \_\_\_\_\_

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Daniel D. Opalski, Director  
Office of Environmental Cleanup

Effective date of this Decision: \_\_\_\_\_

## **XI. ATTACHMENTS**

- Confidential Enforcement Addendum
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- Figure 1 (Site Location Map)
- Figure 2 (Site Vicinity Map Map)
- Figure 3 (Approximate Boundaries of Site and Site Subareas)
- Figure 4 (Historical Railroad Facility Layout
- Figure 5 (Historical Railroad Facility Layout with Recent Aerial Image of Site)
- Figure 6 (LNAPL Plume Area Estimates and Product Observations in Soil Borings and Test Pits)
  
- Table 1 (Contaminants of Concern)
- Table 2 (ARARs)
  
- EE/CA Responsiveness Summary



